Robert G. Masten
Square D Company
252 North Tippecanoe Street
Peru, Indiana 46970

Re: **103-12337**
First Significant Revision to
FESOP 103-5653-00025

Dear Mr. Masten:

Square D Company was issued a permit on December 11, 1996 for an electrical circuit breaker panelboard manufacturing source. A letter requesting changes to this permit was received on June 1, 2000. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The revision consists of adding a new metal finishing system. The revision also consists of changing the time frames of the VOC and HAPs limits from a 365-day period to a twelve (12) consecutive month period.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: Square D Company
Address City IN Zip: 252 North Tippecanoe Street, Peru, Indiana 46970
SPR: 103-12337
Plt ID: 103-00025
Reviewer: Mark L. Kramer
Date: June 1, 2000

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.667E-04	9.527E-05	5.954E-03	1.429E-01	2.699E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.969E-05	8.733E-05	1.111E-04	3.017E-05	1.667E-04

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mark L. Kramer, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
MLK/MES
cc: File - Miami County
U.S. EPA, Region V
Miami County Health Department
Air Compliance Section Inspector - Ryan Hillman
Compliance Data Section - Mendy Jones
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 1-800-451-6027

Square D Company
252 North Tippecanoe
Peru, Indiana 46970

Square D Company is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F 103-5653-00025	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: December 11, 1996
First Significant Permit Revision: SPR 103-12337	Page Affected: 4, 5, 16, 16a, 21, 22, 22a, 22b, 25, 25a and 25b
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

A.1 General Information

The Permittee owns and operates an electrical circuit breaker panelboard manufacturing source.

Responsible Official:	Wesley H. Hawkins, Plant Manager
Source Address:	252 North Tippecanoe, Peru, Indiana 46970
Mailing Address:	252 North Tippecanoe, Peru, Indiana 46970
SIC Code:	3613
County Location:	Miami
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

a) One (1) natural gas-fired boiler rated at 13 million British thermal units per hour, exhausting at one stack, identified as Stack C.

b) One (1) E-Coat painting system, capacity: 13,440 square feet per hour, exhausting at five (5) stacks, identified as Stacks D, E, F, G and H.

c) One (1) metal finishing system using a ten (10) stage phosphate pretreatment and an electro-deposition cathodic acrylic water-based paint and combustion units consisting of:

(1) One (1) E-coat paint system dip tank with solvent recovery through ultrafiltration at paint bath and post rinse, exhausted through Stack S3, capacity: 1,080 metal parts for panelboard products.

(2) Two (2) natural gas-fired boilers, known as boilers #1 - paint line and alternate boiler #2 - paint line, rated at 5 million British thermal units per hour, each, exhausted through Stacks S8 and S8A, respectively.

(3) One (1) dehydration natural gas-fired oven, known as paint dehydration burner, rated at 3 million British thermal units per hour, exhausted through Stack S7.

(4) One (1) natural gas-fired cure oven, known as paint cure oven burner, rated at 4.5 million British thermal units per hour, exhausted through Stack S7.

(5) One (1) storage tank, known as E-coat tank, capacity: 19,700 gallons of E-Coat paint.

(6) One (1) storage tank, known as bulk resin, capacity: 7,578 gallons of paint resin.

(7) Two (2) back-up storage tanks, known as paint storage, capacity: 10,689 gallons of E-Coat paint each.

(8) One (1) storage tank, known as E-coat waste, capacity: 2,500 gallons of paint waste.

(9) One (1) ten (10) stage cleaning and phosphating spray aqueous pretreatment operation, exhausting through Stacks S1 and S2.

(10) One (1) post rinse - 5 stage operation, exhausting through Stack S4.

(11) One (1) oven air seal & tunnel, exhausting through Stack S6.

(12) One (1) incinerator used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R, capacity: 40 pounds of paint per hour (relocated).

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

b) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment.

d) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

e) Paved and unpaved roads and parking lots with public access.

f) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

g) Powder paint coating operation.

h) Bake enamel painting operation.

i) Glass bead shot blasting.

j) MIG wire welding of panel boxes.

k) Four (4) laser cutting operations.

l) Stainless steel weld clean-up and buffing/polishing operation.

m) Solvent hand wiping surface preparation for re-painting.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations [326 IAC 2-8-4(1)]

C.1 Overall Source Limit (326 IAC 2-8)
The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity
Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following:

a) Visible emissions shall not exceed an average of 40 percent opacity in 24 consecutive readings,

b) Visible emissions shall not exceed 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

C.3 Open Burning
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

C.4 Fugitive Dust Emissions
The Permittee shall be in violation of 326 IAC 6-4 if any of the criteria specified in 326 IAC 6-4-2 (1) through (4) are violated.

C.5 Operation of Equipment [326 IAC 2-8-5(a)(4)]

a) All equipment that potentially might emit pollutants into the ambient air shall be properly operated and maintained.

b) Unless otherwise stated in this permit, all air pollution control equipment listed in this permit shall be operated at all times that the emission unit(s) vented to the control equipment is in operation.

c) The permittee shall perform all necessary maintenance and make all necessary attempts to keep all air pollution control equipment in proper operating condition at all times.

Compliance Monitoring [326 IAC 2-8-5(a)(1)]

C.6 Compliance Monitoring [326 IAC 2-8-4(3)]

Compliance with applicable requirements shall be documented in accordance with the provisions of 326 IAC 2-8-4(3). The Permittee shall be responsible for installing any necessary equipment and

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

b) One (1) E-Coat painting system, capacity: 13,440 square feet per hour, exhausting at five (5) stacks, identified as Stacks D, E, F, G and H.

c) One (1) metal finishing system using a ten (10) stage phosphate pretreatment and an electro-deposition cathodic acrylic water-based paint and combustion units consisting of:

(1) One (1) E-coat paint system dip tank with solvent recovery through ultrafiltration at paint bath and post rinse, exhausted through Stack S3, capacity: 1,080 metal parts for panelboard products.

(2) Two (2) natural gas-fired boilers, known as boilers #1 - paint line and alternate boiler #2 - paint line, rated at 5 million British thermal units per hour, each, exhausted through Stacks S8 and S8A, respectively.

(3) One (1) dehydration natural gas-fired oven, known as paint dehydration burner, rated at 3 million British thermal units per hour, exhausted through Stack S7.

(4) One (1) natural gas-fired cure oven, known as paint cure oven burner, rated at 4.5 million British thermal units per hour, exhausted through Stack S7.

(5) One (1) storage tank, known as E-coat tank, capacity: 19,700 gallons of E-Coat paint.

(6) One (1) storage tank, known as bulk resin, capacity: 7,578 gallons of paint resin.

(7) Two (2) back-up storage tanks, known as paint storage, capacity: 10,689 gallons of E-Coat paint each.

(8) One (1) storage tank, known as E-coat waste, capacity: 2,500 gallons of paint waste.

(9) One (1) ten (10) stage cleaning and phosphating spray aqueous pretreatment operation, exhausting through Stacks S1 and S2.

(10) One (1) post rinse - 5 stage operation, exhausting through Stack S4.

(11) One (1) oven air seal & tunnel, exhausting through Stack S6.

(12) One (1) incinerator used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R, capacity: 40 pounds of paint per hour (relocated).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compound

The volatile organic compound (VOC) delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than a total of 97.25 tons per twelve (12) consecutive

month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.2 Hazardous Air Pollutants
The hazardous air pollutant emissions shall be limited as follows:

a) The amount of any single hazardous air pollutant (HAP) delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than 9.75 tons per twelve (12) consecutive month period.

b) The amount of any combination of HAPs delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than 24.75 tons per twelve (12) consecutive month period.

Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.3 Volatile Organic Compound [326 IAC 8-2-9]
(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicators in the metal finishing system shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings.

(b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.4 Particulate Matter (PM) [326 IAC 6-2-4]
Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from each of the two (2) 5.0 million British thermal units per hour boilers shall be limited to 0.482 pounds per million British thermal units heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units per hour heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used. Q = 23.0 million British thermal units per hour heat input.

D.2.5 Incinerators [326 IAC 4-2]
Pursuant to 326 IAC 4-2-2(8)(B), the allowable PM emission rate from the incinerator used as a paint burn-off oven is one half (0.5) pound per one thousand (1,000) pounds of dry exhaust at standard conditions corrected to fifty percent (50%) excess air.

D.2.6 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]
The one (1) 19,700 gallon storage tank, known as E-coat tank and the two (2) back-up 10, 689 gallon storage tanks, known as paint storage shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b, Subpart Kb). 40 CFR Part 60.116b paragraphs (a) and (b) require the Permittee to maintain accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks.

D.2.7 Preventive Maintenance [326 IAC 2-8-4(9)]
A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the E-Coat painting and metal finishing systems.

Compliance Determination Requirements

D.2.8 Volatile Organic Compounds (VOC) and HAPs
Compliance with the VOC and HAPs usage limitations contained in Conditions D.2.1 and D.2.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.9 VOC and HAPs Emissions
Compliance with Conditions D.2.1 and D.2.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound, single HAP and combination of HAPs usage for the most recent twelve (12) month period.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.10 Record Keeping Requirements

(a) To document compliance with Conditions D.2.1 and D.2.2 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs usage limits and/or the VOC and HAPs emission limits established in Condition D.2.1 and D.2.2.

(1) The amount of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC, single HAP and combination of HAPs usage for each month; and

(5) The weight of VOCs, single HAP and combination of HAPs emitted for each compliance period.

(b) To document compliance with Conditions D.2.3 the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.2.3.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.11 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]
The Permittee shall maintain accessible records showing the dimensions of the storage tanks and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks. A copy of 40 CFR Part 60, Subpart Kb, is attached.

D.2.12 Quarterly Reporting
A quarterly summary to document compliance with operation conditions numbers D.2.1 and D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. Compliance with operation condition numbers D.2.1 and D.2.2 shall also be shown by keeping the appropriate material data safety sheet (MSDS) for the coatings used on file.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Square D Company
Source Address: 252 North Tippecanoe, Peru, Indiana 46970
Mailing Address: 252 North Tippecanoe, Peru, Indiana 46970
FESOP No.: F 103-5653-00025
Facility: E-Coat Painting and Metal Finishing Systems
Parameter: VOCs Delivered to the applicators
Limit: Less than 97.25 tons per twelve (12) consecutive month period

Year: _____

Month	E-Coat Painting and Metal Finishing Systems VOC (tons)		
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Square D Company
Source Address: 252 North Tippecanoe, Peru, Indiana 46970
Mailing Address: 252 North Tippecanoe, Peru, Indiana 46970
FESOP No.: F 103-5653-00025
Facilities: E-Coat Painting and Metal Finishing Systems
Parameter: Single HAP delivered to the applicators
Limit: Less than 9.75 tons per twelve (12) consecutive month period

YEAR: _____

Month	E-Coat Painting and Metal Finishing Systems Single HAP (tons)		
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Square D Company
Source Address: 252 North Tippecanoe, Peru, Indiana 46970
Mailing Address: 252 North Tippecanoe, Peru, Indiana 46970
FESOP No.: F 103-5653-00025
Facilities: E-Coat Painting and Metal Finishing Systems
Parameter: Combinations of HAPs delivered to the applicators
Limit: Less than 24.75 tons per twelve (12) consecutive month period

YEAR: _____

Month	E-Coat Painting and Metal Finishing Systems Combination of HAPs (tons)		
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

A certification is not required for this report.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**Square D Company**
Source Location:	**252 North Tippecanoe Street, Peru, Indiana 46970**
County:	**Miami**
SIC Code:	**3613**
Operation Permit No.:	**F 103-5653-00025**
Operation Permit Issuance Date:	**December 11, 1996**
Significant Permit Revision No.:	**SPR 103-12337-00025**
Permit Reviewer:	**Mark L. Kramer**

The Office of Air Management (OAM) has reviewed a revision application from Square D Company relating to the construction and operation of the following emission units and pollution control devices:

One (1) metal finishing system using a ten (10) stage phosphate pretreatment and an electro-deposition cathodic acrylic water-based paint and combustion units consisting of:

(1) One (1) E-coat paint system dip tank with solvent recovery through ultrafiltration at paint bath and post rinse, exhausted through Stack S3, capacity: 1,080 metal parts for panelboard products.

(2) Two (2) natural gas-fired boilers, known as boilers #1 - paint line and alternate boiler #2 - paint line, rated at 5 million British thermal units per hour, each, exhausted through Stacks S8 and S8A, respectively.

(3) One (1) dehydration natural gas-fired oven, known as paint dehydration burner, rated at 3 million British thermal units per hour, exhausted through Stack S7.

(4) One (1) natural gas-fired cure oven, known as paint cure oven burner, rated at 4.5 million British thermal units per hour, exhausted through Stack S7.

(5) One (1) storage tank, known as E-coat tank, capacity: 19,700 gallons of E-Coat paint.

(6) One (1) storage tank, known as bulk resin, capacity: 7,578 gallons of paint resin.

(7) Two (2) back-up storage tanks, known as paint storage, capacity: 10,689 gallons of E-Coat paint each.

(8) One (1) storage tank, known as E-coat waste, capacity: 2,500 gallons of paint waste.

(9) One (1) ten (10) stage cleaning and phosphating spray aqueous pretreatment operation, exhausting through Stacks S1 and S2.

(10) One (1) post rinse - 5 stage operation, exhausting through Stack S4.

(11) One (1) oven air seal & tunnel, exhausting through Stack S6.

(12) One (1) incinerator used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R, capacity: 40 pounds of paint per hour (relocated).

History

On June 1, 2000, Square D Company submitted an application to the OAM requesting to add a metal finishing system (E-Coat paint line) to their existing plant and change all compliance time frames from fixed monthly to rolling twelve (12) consecutive month periods. Square D Company was issued a Federally Enforceable State Operating Permit (FESOP) on December 11, 1996. The existing E-Coat paint line will be eventually taken out of service and replaced by the proposed line. The two (2) systems may operate simultaneously for an unknown period of time.

The insignificant natural gas activities included the 0.625 million British thermal units per hour paint burn-off incinerator permitted by an Exemption Letter dated June 24, 1991. This activity should be subject to the requirements of 326 IAC 4-2-2(8)(B). This insignificant being located will be specifically incorporated into the revision.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S1	Washer Entrance	31	1.25	2,143	ambient
S2	Washer Exit	31	2.00	4,776	ambient
S3	E-Coat Paint	31	1.50	3,861	ambient
S4	Post Rinse Exit	31	2.00	6,779	ambient
S5	Oven Purge	31	2.42	11,560	450
S6	Oven Air Seal Bleed-Off	31	1.33	2,497	450
S7	Oven	31	2.00	7,589	450
S8	Boiler	31	1.50	2,556	300
S8A	Boiler	31	1.50	2,556	300
R	Incinerator Paint Burn-Off Oven	31	1.25	natural draft	1,500

Recommendation

The staff recommends to the Commissioner that the FESOP Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 1, 2000. Additional information was received on July 27, 2000.

Emission Calculations

See pages 1 - 4 of 4 of Appendix A of this document for detailed emissions calculations. Actual VOC and HAPs emissions from insignificant activities at the source, estimated by the applicant, amount to an additional 2 tons per year of VOC and 0.25 tons of HAPs per year.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	0.151
PM_{10}	0.603
SO_2	0.048
VOC	54.7
CO	6.67
NO_X	7.94

HAPs	**Potential To Emit** (tons/year)
Ethylene Glycol	0.066
Glycol Ethers	1.16
Benzene	0.0002
Dichlorobenzene	0.0001
Formaldehyde	0.006
Hexane	0.143
Toluene	0.003
Lead Compounds	0.00004
Cadmium Compounds	0.00009
Chromium Compounds	0.0001

Manganese Compounds	0.00003
Nickel Compounds	0.0002
TOTAL	1.37

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1) since the potential to emit VOC from this revision is greater than twenty five (25) tons per year.

County Attainment Status

The source is located in Miami County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Miami County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Miami County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	0.780
PM_{10}	0.780
SO_2	0.034
VOC	less than 100
CO	1.92
NO_X	7.67

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the Technical Support Document to FESOP, F 103-5653-00025.

Potential to Emit of the Revision and the Entire Source After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls including in-house recycling of materials. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

	Potential to Emit (tons/year)						
Process/facility	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Proposed Revision	0.151	0.603	0.048	17.1	6.67	7.94	1.33
Entire Source After Revision	0.931	less than 100	less than 100	less than 100	less than 100	less than 100	less than10/25 single/ combined
FESOP Limits	-	less than 100	less than 100	less than 100	less than 100	less than 100	less than10/25 single/ combined

This proposed revision to an existing stationary source will allow the source to maintain its FESOP status. Therefore, the source is subject to the provisions of 326 IAC 2-7. In addition, 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements are not applicable since this source will maintain their FESOP status.

The addition of the proposed E-Coat painting and finishing systems does not necessitate a change in the entire source FESOP limits. The applicant requested that the compliance time frame of the FESOP VOC and HAPs limits be changed from fixed monthly to a rolling twelve (12) consecutive month period. The amount of VOC delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than ninety-seven and twenty-five hundredths (97.25) tons per twelve (12) consecutive month period. This combined with the actual VOC emissions from

natural gas combustion and insignificant activities will assure that the VOC emissions from the entire source will be less than one hundred (100) tons per year.

Similarly, the amount of any single and combination of HAPs delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than nine and seventy-five hundredths (9.75) tons for single HAP and less than twenty-four and seventy-five hundredths (24.75) tons for the combination of HAPs per twelve (12) consecutive month period. These limits combined with the actual HAPs emissions from natural gas combustion and insignificant activities will insure that the entire source's HAPs are less than the FESOP HAPs limits.

Federal Rule Applicability

(a) The proposed two (2) natural gas-fired boilers, each rated at 5 million British thermal units per hour are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.60.40c, Subpart Dc, because each boiler is rated at less than ten (10) million British thermal units per hour.

(b) The proposed one (1) storage tank, known as E-coat tank, with a capacity of 19,700 gallons of E-Coat paint, and the two (2) back-up storage tanks, known as paint storage, with a capacity of 10,689 gallons of E-Coat paint each are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, Subpart Kb) since each capacity is greater than forty (40) cubic meters (10,567 gallons) and they will be constructed after the July 23, 1984 applicability date.

(c) The proposed one (1) storage tank, known as bulk resin, with a capacity of 7,578 gallons of paint resin and the one (1) storage tank, known as E-coat waste with a capacity of 2,500 gallons of paint waste are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, Subpart Kb) since their capacities are each less than forty (40) cubic meters.

(d) The existing incinerator used as a paint burn-off oven is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart EEE which became effective after the December 11, 1996 FESOP issuance date because the incinerator is a industrial furnace process which is exempt for this rule. The oven burns off paint from metal which is then reused in product manufacturing.

State Rule Applicability - Entire Source

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of VOC delivered to the applicators from the E-Coat painting and metal finishing systems shall be limited to less than ninety-seven and five tenths (97.25) tons per twelve (12) consecutive month period. This combined with the actual VOC emissions from natural gas combustion and insignificant activities will assure that the VOC emissions from the entire source will be less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

Pursuant to this rule, the amount of any single HAP from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period and less than twenty-five (25) tons per twelve (12) consecutive month for any combination of HAPs. Therefore, the requirements of 326 IAC 2-7 do not apply.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New source toxics control)

Since the PTE of a single HAP and a combination of HAPs are limited to less than the major source levels of ten (10) and twenty-five (25) tons per year, respectively, this proposed revision is not subject to the requirements of this rule.

326 IAC 4-2 (Incinerators)

The insignificant activity, one (1) incinerator to be used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R is subject to the requirement of 326 IAC 4-2-2(8)(B). Pursuant to this rule, the allowable PM emission rate from incinerators with a burning capacity of less than 200 pounds per hour is 0.5 pounds per one thousand (1,000) pounds of dry exhaust at standard conditions corrected to fifty percent (50%) excess air.

326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d))

The two (2) boilers, each rated at 5.0 million British thermal units per hour, to be installed after September 21, 1983, are subject to the requirements of this rule that limits PM emissions as follows:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units heat input (13+10). The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.

$$Pt = \frac{1.09}{23^{0.26}} = 0.482 \text{ pounds per million British thermal units.}$$

The potential PM emissions from each boiler rated at 5 million British thermal units per hour are 0.042 tons per year or 0.0019 pounds per million British thermal units and therefore complies with this rule.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicators in the proposed metal finishing system shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings.

(b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS for the material for Cathodic E-Coat Paint Powercron comply with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements applicable to these facilities.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

a) One (1) natural gas-fired boiler rated at 13 million British thermal units per hour, exhausting at one stack, identified as Stack C.

b) One (1) E-Coat painting system, capacity: 13,440 square feet per hour, exhausting at five (5) stacks, identified as Stacks D, E, F, G and H.

c) One (1) metal finishing system using a ten (10) stage phosphate pretreatment and an electro-deposition cathodic acrylic water-based paint and combustion units consisting of:

(1) One (1) E-coat paint system dip tank with solvent recovery through ultrafiltration at paint bath and post rinse, exhausted through Stack S3, capacity: 1,080 metal parts for panelboard products.

(2) Two (2) natural gas-fired boilers, known as boilers #1 - paint line and alternate boiler #2 - paint line, rated at 5 million British thermal units per hour, each, exhausted through Stacks S8 and S8A, respectively.

(3) One (1) dehydration natural gas-fired oven, known as paint dehydration burner, rated at 3 million British thermal units per hour, exhausted through Stack S7.

(4) One (1) natural gas-fired cure oven, known as paint cure oven burner, rated at 4.5 million British thermal units per hour, exhausted through Stack S7.

(5) One (1) storage tank, known as E-coat tank, capacity: 19,700 gallons of E-Coat paint.

(6) One (1) storage tank, known as bulk resin, capacity: 7,578 gallons of paint resin.

(7) Two (2) back-up storage tanks, known as paint storage, capacity: 10,689 gallons of E-Coat paint each.

(8) One (1) storage tank, known as E-coat waste, capacity: 2,500 gallons of paint waste.

(9) One (1) ten (10) stage cleaning and phosphating spray aqueous pretreatment operation, exhausting through Stacks S1 and S2.

(10) One (1) post rinse - 5 stage operation, exhausting through Stack S4.

(11) One (1) oven air seal & tunnel, exhausting through Stack S6.

(12) One (1) incinerator used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R, capacity: 40 pounds of paint per hour (relocated).

C.1 Overall Source Limit (326 IAC 2-8)

~~Pursuant to 326 IAC 2-8, emissions of any regulated pollutant from the entire source shall not exceed 99 tons per 365 day period. Emissions of hazardous air pollutants (HAP) from the entire source shall not exceed 9 tons per 365 day period for any individual HAP of 24 tons per 365 day period of any combination of HAPs. Emissions shall include those from all emission points at the source including those that are insignificant as defined in 326 IAC 2-7-1(20). The source shall be allowed to add insignificant activities not already listed in this permit, as long as the total emissions from the source do not exceed the above specified limits. In the event that any condition or combination of conditions in Section D of this permit differs from the above, the most restrictive limit will prevail.~~

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

b) One (1) E-Coat painting system, capacity: 13,440 square feet per hour, exhausting at five (5) stacks, identified as Stacks D, E, F, G and H.

c) One (1) metal finishing system using a ten (10) stage phosphate pretreatment and an electro-deposition cathodic acrylic water-based paint and combustion units consisting of:

(1) One (1) E-coat paint system dip tank with solvent recovery through ultrafiltration at paint bath and post rinse, exhausted through Stack S3, capacity: 1,080 metal parts for panelboard products.

(2) Two (2) natural gas-fired boilers, known as boilers #1 - paint line and alternate boiler #2 - paint line, rated at 5 million British thermal units per hour, each, exhausted through Stacks S8 and S8A, respectively.

(3) One (1) dehydration natural gas-fired oven, known as paint dehydration burner, rated at 3 million British thermal units per hour, exhausted through Stack S7.

(4) One (1) natural gas-fired cure oven, known as paint cure oven burner, rated at 4.5 million British thermal units per hour, exhausted through Stack S7.

(5) One (1) storage tank, known as E-coat tank, capacity: 19,700 gallons of E-Coat paint.

(6) One (1) storage tank, known as bulk resin, capacity: 7,578 gallons of paint resin.

(7) Two (2) back-up storage tanks, known as paint storage, capacity: 10,689 gallons of E-Coat paint each.

(8) One (1) storage tank, known as E-coat waste, capacity: 2,500 gallons of paint waste.

(9) One (1) ten (10) stage cleaning and phosphating spray aqueous pretreatment operation, exhausting through Stacks S1 and S2.

(10) One (1) post rinse - 5 stage operation, exhausting through Stack S4.

(11) One (1) oven air seal & tunnel, exhausting through Stack S6.

(12) One (1) incinerator used as a paint burn-off oven, rated at 0.625 million British thermal units per hour, exhausting through Stack R, capacity: 40 pounds of paint per hour (relocated).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compound
The volatile organic compound (VOC) delivered to the applicators **from the E-Coat painting and metal finishing systems** shall be limited to **less than a total of** ~~8.25~~ **97.25** tons per **twelve (12) consecutive** month **period**. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.2 Hazardous Air Pollutants
The hazardous air pollutant emissions shall be limited as follows:

a) The amount of any single hazardous air pollutant (HAP) delivered to the applicators **from the E-Coat painting and metal finishing systems** shall ~~not exceed 0.75~~ **be limited to less than 9.75** tons per **twelve (12) consecutive** month **period**.

b) The amount of any combination of HAPs delivered to the applicators **from the E-Coat painting and metal finishing systems** shall ~~not exceed 2.00~~ **be limited to less than 24.75** tons per **twelve (12) consecutive** month **period**.

Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.3 Volatile Organic Compound [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicators in the metal finishing system shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings.

(b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.4 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from each of the two (2) 5.0 million British thermal units per hour boilers shall be limited to 0.482 pounds per million British thermal units heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units per hour heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used. Q = 23.0 million British thermal units per hour heat input.

D.2.5 Incinerators [326 IAC 4-2]

Pursuant to 326 IAC 4-2-2(8)(B), the allowable PM emission rate from the incinerator used as a paint burn-off oven is one half (0.5) pound per one thousand (1,000) pounds of dry exhaust at standard conditions corrected to fifty percent (50%) excess air.

D.2.6 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]

The one (1) 19,700 gallon storage tank, known as E-coat tank and the two (2) back-up 10, 689 gallon storage tanks, known as paint storage shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b, Subpart Kb). 40 CFR Part 60.116b paragraphs (a) and (b) require the Permittee to maintain accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks.

D.2.7 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the E-Coat painting and metal finishing systems.

Compliance Determination Requirements

D.2.8 Volatile Organic Compounds (VOC) and HAPs

Compliance with the VOC and HAPs usage limitations contained in Conditions D.2.1 and D.2.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.9 VOC and HAPs Emissions

Compliance with Conditions D.2.1 and D.2.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound, single HAP and combination of HAPs usage for the most recent twelve (12) month period.

~~Compliance Monitoring [326 IAC 2-8-5(a)(1)]~~

~~D.2.3 Daily Visible Emissions Notations~~

~~Daily visible emission notations of the E-Coat painting system stack exhausts, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.~~

~~D.2.4 Preventive Maintenance [326 IAC 2-8-4(9)]~~

~~A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this facility.~~

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] **[326 IAC 2-8-16]**

D.2.10 Record Keeping Requirements

(a) To document compliance with Conditions D.2.1 and D.2.2 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs usage limits and/or the VOC and HAPs emission limits established in Condition D.2.1 and D.2.2.

(1) The amount of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC, single HAP and combination of HAPs usage for each month; and

(5) The weight of VOCs, single HAP and combination of HAPs emitted for each compliance period.

(b) To document compliance with Conditions D.2.3 the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.2.3.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.2.5 Volatile Organic Compound (VOC) Usage~~

~~The Permittee shall maintain records at the source of the materials used that contain any VOCs. The records shall be complete and sufficient to establish compliance with the VOC usage limits and/or VOC emission limits established in this permit. The records shall contain a minimum of the following~~:

~~a) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used~~;

~~b) The VOC content (weight percent) of each material used;~~

~~c) The weight of VOCs emitted for each compliance period, considering capture and control~~

~~efficiency, if applicable; and~~

~~d) Identification of the facility or facilities associated with the usage of VOC.~~

~~Compliance will be determined in accordance with 326 IAC 8-1-2 (Compliance Methods).~~

~~D.2.6 Hazardous Air Pollutant (HAP) Usage~~

~~The Permittee shall maintain records at the facility of the materials used that contain any HAPs. The records shall be complete and sufficient to establish compliance with the HAP usage limits and/or HAP emission limits that may be established in this permit. The records shall contain a minimum of the following:~~

~~a) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;~~

~~b) The HAP content (weight percent) of each material used;~~

~~c) The weight of HAPs emitted for each compliance period, considering capture and control efficiency, if applicable;~~

~~d) Identification of the facility or facilities associated with the usage of each HAP.~~

D.2.11 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]

The Permittee shall maintain accessible records showing the dimensions of the storage tanks and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks. A copy of 40 CFR Part 60, Subpart Kb, is attached.

D.2.**12**~~7~~ Quarterly Reporting

A quarterly summary to document compliance with operation conditions numbers D.2.1 and D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported. Compliance with operation condition numbers D.2.1 and D.2.2 shall also be shown by keeping the appropriate material data safety sheet (MSDS) for the coatings used on file.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Square D Company
Source Address: 252 North Tippecanoe, Peru, Indiana 46970
Mailing Address: 252 North Tippecanoe, Peru, Indiana 46970
FESOP No.: F 103-5653-00025
Facility~~y~~**ies**: E-Coat Painting **and Metal Finishing** System**s**
Parameter: VOCs ~~and HAPs~~ Delivered to the applicators
Limit: ~~0.75 tons per month of any single HAP~~
~~2.00 tons per month of any combination of HAPs~~
Less than ~~8.25~~ **97.25** tons per **twelve (12) consecutive** month **period** ~~of VOC~~

Year: _____

Month	~~Total VOC E-Coat System (tons)~~	~~Worst Case Single HAP E-Coat System (tons)~~	~~Combination of HAPs E-Coat System (tons)~~
	E-Coat Painting and Metal Finishing Systems VOC (tons)		
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: **Square D Company**
Source Address: **252 North Tippecanoe, Peru, Indiana 46970**
Mailing Address: **252 North Tippecanoe, Peru, Indiana 46970**
FESOP No.: **F 103-5653-00025**
Facilities: **E-Coat Painting and Metal Finishing Systems**
Parameter: **Single HAP delivered to the applicators**
Limit: **Less than 9.75 tons per twelve (12) consecutive month period**

YEAR: _____

Month	E-Coat Painting and Metal Finishing Systems Single HAP (tons)		
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Square D Company
Source Address: 252 North Tippecanoe, Peru, Indiana 46970
Mailing Address: 252 North Tippecanoe, Peru, Indiana 46970
FESOP No.: F 103-5653-00025
Facilities: E-Coat Painting and Metal Finishing Systems
Parameter: Combinations of HAPs delivered to the applicators
Limit: Less than 24.75 tons per twelve (12) consecutive month period

YEAR: _____

Month	E-Coat Painting and Metal Finishing Systems Combination of HAPs (tons)		
	This Month	Previous 11 Months	12 Month Total

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report.

Conclusion

The construction of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 103-12337-00025.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Square D Company
Address City IN Zip: 252 North Tippecanoe Street, Peru, Indiana 46970
SPR: 103-12337
Plt ID: 103-00025
Reviewer: Mark L. Kramer
Date: June 1, 2000

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	
E-Coat Paint System																	
Cathodic E-Coat Paint Powercron	8.59	88.00%	85.0%	3.0%	87.6%	9.09%	0.04350	1080.000	2.08	0.26	12.11	290.70	53.05	0.00	2.84	100%	Metal
CR 925 - CP916																	
State Potential Emissions			**Add worst case coating to all solvents**							**Before Recycling**	**12.11**	**290.70**	**53.05**	**0.00**			
										Applicant Estimate After Solvent Recycling, Evaporation and Purges	**3.540**	**84.960**	**15.505**	**0.00**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	
10-Stage Cleaning & Phosphating Op.																	
ChemKleen 611L	10.43	100.00%	97.5%	2.5%	97.5%	9.09%	1.01850	1.000	10.43	0.26	0.2654	6.37	1.16	0.00	2.87	100%	Metal
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**0.265**	**6.371**	**1.163**	**0.000**			

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: **Square D Company**
Address City IN Zip: **252 North Tippecanoe Street, Peru, Indiana 46970**
SPR: **103-12337**
Plt ID: **103-00025**
Reviewer: **Mark L. Kramer**
Date: **June 1, 2000**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethylene Glycol Ether	Weight % Glycol	Weight %	Weight %	Weight %	Weight %	Weight %	Ethylene Glycol Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Emissions (tons/yr)	Emissions (tons/yr)	Emissions (tons/yr)	Emissions (tons/yr)	Emissions (tons/yr)
E-Coat Paint System																	
Cathodic E-Coat Paint Powercron	8.59	0.04350	1080.000	0.003720%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0658	0.00	0.00	0.00	0.00	0.00	0.00
CR 925 - CP916																	
10-Stage Cleaning & Phosphating OP	10.43	1.01850	1.000	0.000000%	2.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	1.16	0.00	0.00	0.00	0.00	0.00
										Individual Total	**0.0658**	**1.1632**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
METHODOLOGY										**Total HAPs**	**1.2290**						
Applicant Estimate After Solvent Recycling, Evaporation and Purges										**Individual Total**	**0.0192**	**1.1632**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
										Total HAPs	**1.1824**						

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Square D Company
Address City IN Zip: 252 North Tippecanoe Street, Peru, Indiana 46970
SPR: 103-12337
Plt ID: 103-00025
Reviewer: Mark L. Kramer
Date: June 1, 2000

All Insignificant Activities

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr			
		Boilers #1 and #2	10	mmbtu/hr
		Dehydration Over	3	mmbtu/hr
		Cure Oven	4.5	mmbtu/hr
18.125	158.78	Incinerator	0.625	mmbtu/hr
		Total	18.125	

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.151	0.603	0.048	7.939	0.437	6.669

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 4 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Square D Company**
Address City IN Zip: **252 North Tippecanoe Street, Peru, Indiana 46970**
SPR: **103-12337**
Plt ID: **103-00025**
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Date: **June 1, 2000**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.667E-04	9.527E-05	5.954E-03	1.429E-01	2.699E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.969E-05	8.733E-05	1.111E-04	3.017E-05	1.667E-04

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.